

# ABSTRACT

Particulate silica is prepared by feeding a gas mixture of an organohalosilane gas, a flammable gas capable of generating water vapor when burned, and a free oxygen-containing gas to a reaction chamber through a multiple-tube burner, whereby the organohalosilane is subjected to flame hydrolysis and oxidation reaction. The amount of the flammable gas fed is 0.5-9 mol per mol of the organohalosilane and such that the amount of water vapor resulting from combustion of the flammable gas is 1-6 times the stoichiometric amount, and the gas mixture is fed to the center tube of the burner such that it may have a linear velocity at the outlet of 50-120 m/sec, calculated in the standard state. The resulting silica has a surface area of 100-400 m<sup>2</sup>/g and a narrow particle size distribution of primary particles and ensures the transparency of silicone rubber filled therewith.